

CLAIMS:

1. A corrugated fin feeding apparatus for feeding corrugated fins to a temporary assembling device of a heat exchanger core which alternately
5 arranges tubes and corrugated fins for a heat exchanger to temporarily assemble the heat exchanger core, the corrugated fin feeding apparatus comprising:

a cutting device which cuts a continuous fin material in corrugated form
10 without stopping conveyance of the fin material toward a downstream side thereof to thereby produce corrugated fins having a predetermined length; and

15 a conveying device which adds a force to the corrugated fins being cut to increase a speed thereof to separate the adjacent corrugated fins from each other to thereby convey the corrugated fins at predetermined intervals.

2. The corrugated fin feeding apparatus according to claim 1 further comprising:

20 a forcible conveying device which adds a driving force to the corrugated fins being conveyed to push out the corrugated fins toward a downstream side thereof and distributes the corrugated fins in predetermined directions;

25 an accumulating device having a plurality of accumulating rooms into which the corrugated fins are distributed and accommodated respectively;

an inserting device which feeds a predetermined number of the corrugated fins simultaneously to the temporary assembling device of the heat exchanger core when the predetermined number of the corrugated fins are
5 accommodated into the accumulating rooms; and

a control device which synchronously controls said forcible conveying device, said accumulating device, and said inserting device based on positions of the corrugated fins determined by said conveying device.

10

3. The corrugated fin feeding apparatus according to claim 1 or claim 2,

wherein said conveying device comprises:

15 a belt conveyor which has a belt to convey the corrugated fins; and

position determining portions provided at predetermined intervals on the belt of said belt conveyor,

20 wherein the corrugated fins are arranged between said position determining portions to determine positions of the corrugated fins to thereby convey the corrugated fins at predetermined intervals.

25 4. The corrugated fin feeding apparatus according to any one of claim 1 to
claim 3,

wherein said accumulating device comprises:

a rotating shaft; and

- 5 a plurality of said accumulating rooms provided in parallel to an axial direction of said rotating shaft,

wherein the corrugated fins are accommodated while said plural accumulating rooms are rotated in a circumferential direction of said rotating
10 shaft, and said inserting device feeds after the rotation thereof the corrugated fins to the temporary assembling device of the heat exchanger core.

5. A corrugated fin feeding method for feeding corrugated fins to a temporary assembling device of a heat exchanger core which alternately arranges tubes
15 and corrugated fins to temporarily assemble the heat exchanger core, the corrugated fin feeding method comprising:

a cutting step of cutting a continuous fin material in corrugated form without stopping conveyance of the fin material toward a conveying direction thereof
20 to thereby produce corrugated fins having a predetermined length; and

a conveying step of adding a force to the corrugated fins being cut to increase a speed thereof to separate the adjacent corrugated fins from each other, determining front and rear positions of the corrugated fins, and conveying the
25 corrugated fins.

6. The corrugated fin feeding method according to claim 5, further comprising:

a forcibly conveying step of adding a driving force to the corrugated fins
5 being conveyed to push out the corrugated fins toward a downstream side thereof and distributing the corrugated fins in predetermined directions;

an accumulating step of accommodating the corrugated fins being distributed into a plurality of accumulating rooms; and

10 an inserting step of feeding the corrugated fins to the temporary assembling device of the heat exchanger core when a predetermined number of the corrugated fins is accumulated into the accumulating rooms.